IN THE CLAIMS:

Claims 1-31 (canceled)

32. (Original) A method of implanting an artificial intervertebral disc comprising:

(a) making an incision in an annulus of a human spinal column between adjacent vertebral bodies of said spinal column to thereby expose a space residing between said adjacent vertebral bodies;

(b) inserting a spacing member through the incision and into position between the adjacent vertebral bodies, and positioning said spacing member at an anterior location with respect to the spinal column such that more intervertebral space resides posteriorly to said spacing member than anteriorly thereto;

(c) applying compression to posterior portions of the adjacent vertebral bodies.

33. (Original) The method of claim 32, further comprising:

(d) removing a natural human disc from the space, prior to part (b).

34. (Original) The method of claim 32, wherein part (c) further comprises compressing the posterior portions of the adjacent vertebral bodies toward each other to a degree sufficient to move said adjacent vertebral bodies into a sagittal alignment.

35. (Original) The method of claim 34, further comprising:

(e) attaching a holding means to the adjacent vertebral bodies for holding said adjacent vertebral bodies in the sagittal alignment to thereby inhibit said vertebral bodies from moving out of sagittal alignment.

36. (Original) The method of claim 32, wherein part (b) further comprises positioning the spacing member sufficiently anteriorly such that said spacing member resides in contact with an anterior longitudinal ligament of the spinal column.

37. (Original) A method of implanting an artificial intervertebral disc comprising:

(a) making an incision in an anulus of a human spinal column between adjacent vertebral bodies of said spinal column to thereby expose a space residing between said adjacent vertebral bodies;

(b) inserting a spacing member through the incision and into position between the adjacent vertebral bodies, and positioning said spacing member at an anterior location with respect to the spinal column such that more intervertebral space resides posteriorly to said spacing member than anteriorly thereto;

(c) placing bone grafting material through the incision and into position between the adjacent vertebral bodies such that said

bone grafting material resides between the spacing member and a posterior longitudinal ligament of the spinal column; and

(d) attaching a compression means to posterior portions of the adjacent vertebral bodies to thereby force said posterior portions of the adjacent vertebral bodies toward each other and thereby compress the bone grafting material, said compression means comprising pedicle screws and rod members intercoupling said screws.

38. (Original) The method of claim 37, wherein the bone grafting material comprises autogenous bone.

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39. (Original) A method of implanting an artificial intervertebral disc comprising:

(a) inserting a spacing member into position between adjacent vertebral bodies of a human spinal column, and positioning said spacing member at an anterior location with respect to the spinal column such that more intervertebral space resides posteriorly to said spacing member than anteriorly thereto; and

(b) applying compression to posterior portions of the adjacent vertebral bodies.

40. (Original) The method of claim 39, further comprising additional parts to be performed prior to part (b), said additional parts comprising:

(i) placing bone grafting material into position between the adjacent vertebral bodies such that said bone grafting material resides between the spacing member and a posterior longitudinal ligament of the spinal column; and

(ii) attaching a compression means to posterior portions of the adjacent vertebral bodies to thereby force said posterior portions of the adjacent vertebral bodies toward each other and thereby compress the bone grafting material, said compression means comprising pedicle screws and rod members intercoupling said screws.

41. (Currently amended) A method of implanting an artificial intervertebral disc comprising:

(a) making an incision in an anulus of a human spinal column between adjacent vertebral bodies of said spinal column to thereby expose a space residing between said adjacent vertebral bodies;

(b) selecting a spacing member comprising an external concavo-convex contour with respect to one dimension of said spacing member, wherein the spacing member defines an imaginary arcuate centerline residing between opposing sides of the external concavo-convex contour of said spacing member, wherein the spacing member

comprises an upper surface and a lower surface and a free insertion end, and wherein said spacing member includes a tapered portion such that said spacing member becomes progressively thinner toward said free insertion end of said spacing member;

(c) inserting the spacing member along an arcuate insertion path through the incision such that the imaginary arcuate centerline follows said arcuate insertion path during the insertion.

42. (Currently amended) A method of implanting an artificial intervertebral disc comprising:

(a) making an incision in an anulus of a human spinal column between adjacent vertebral bodies of said spinal column to thereby expose a space residing between said adjacent vertebral bodies;

(b) inserting a trial spacer through the incision and into position between the adjacent vertebral bodies, and evaluating a snugness of fit of said spacer as it resides between said adjacent vertebral bodies and determining a spacer size thereby, said trial spacer having sharp edging for clearing away tissue;

(c) selecting a spacing member having the spacer size determined in part (b) and inserting said spacing member through the incision and into position between the adjacent vertebral bodies.

43. (Original) The method of claim 42, wherein part (b) further comprises dislodging any unwanted soft tissue from between the vertebral bodies with the trial spacer.

44. (Previously Presented) The method of claim 35, wherein attaching holding means further comprising affixing pedicle screws to posterior pedicle portions of the vertebral bodies, and interconnecting rods with the pedicle screws.

45. (Previously Presented) The method of claim 32 further comprising removing a posterior portion of one of the vertebral bodies for autogenous bone grafting.

46. (Previously Presented) The method of claim 32 further comprising placing a lamina spreader between spinous processes to spread adjacent vertebral bodies apart.

47. (Previously Presented) The method of claim 32 further comprising inserting a trial spacer having sharp edging into the incision to clear away tissue from the incision.

48. (Previously Presented) The method of claim 32 further comprising preparing a bone graft from autogenous bone graft material.

49. (Previously Presented) The method of claim 48 further comprising harvesting autogenous bone and passing said autogenous bone through a mill to form said autogenous bone graft material.

50. (Previously Presented) The method of claim 46 further comprising removing said lamina spreader after said spacing member is in place and closing the incision.

51. (Previously Presented) The method of claim 32 wherein part (c) further comprises tightening pedicle screws to maintain said compression.

52. (New) The method of claim 32, further comprising bringing the adjacent vertebral bodies closer together on a posterior side than on an anterior side.

53. (New) The method of claim 32, wherein step (b) further comprises inserting said spacing member through the incision with a tapered end of said spacing member first.

54. (New) The method of claim 32, further comprising attaching an insertion instrument to said spacing member.

55. (New) The method of claim 54, wherein attaching an insertion instrument to said spacing member comprises threading a trocar on said spacing member.

56. (New) The method of claim 55, further comprising supporting said spacing member with a hollow sheath member, said trocar being slidably disposed within said hollow sheath member.

57. (New) The method of claim 56, further comprising abutting the sheath member against the spacing member and contactably circumscribing a point of attachment of the trocar with the spacing member to provide stability and control over the positioning of the spacing member.

58. (New) The method of claim 37, wherein step (b) further comprises inserting said spacing member through the incision with a tapered end of said spacing member first.

59. (New) The method of claim 37, further comprising attaching a trocar to said spacing member.

60. (New) The method of claim 37, wherein step (b) further comprises:

attaching a trocar to said spacing member, said trocar being slidably disposed within a hollow sheath member;

abutting the sheath member against the spacing member and contactably circumscribing a point of attachment of the trocar with the spacing member to provide stability and control over the positioning of the spacing member; and

inserting said spacing member through the incision in an arcuate insertion path with a tapered end of said spacing member first.

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61. (New) The method of claim 39, wherein step (a) further comprises inserting said spacing member through the incision with a tapered end of said spacing member first.

62. (New) The method of claim 39, further comprising attaching a trocar to said spacing member.

63. (New) The method of claim 40, further comprising:

attaching a trocar to said spacing member, said trocar being slidably disposed within a hollow sheath member;

abutting the sheath member against the spacing member and contactably circumscribing a point of attachment of the trocar with the spacing member to provide stability and control over the positioning of the spacing member; and

inserting said spacing member through the incision in an arcuate insertion path with a tapered end of said spacing member first.

64. (New) The method of claim 41, further comprising applying compression to posterior portions of the adjacent vertebral bodies.

65. (New) The method of claim 42, further comprising inserting said trial spacer through the incision in an arcuate path.

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66. (New) The method of claim 42, further comprising positioning said spacing member at an anterior location with respect to the spinal column such that more intervertebral space resides posteriorly to said spacing member than anteriorly thereto.

67. (New) The method of claim 42, further comprising applying compression to posterior portions of the adjacent vertebral bodies.

68. (New) A method of implanting an artificial intervertebral disc comprising:

(a) making an incision in an anulus of a human spinal column between adjacent vertebral bodies of said spinal column to thereby expose a space residing between said adjacent vertebral bodies;

(b) selecting a spacing member comprising an external concavo-convex contour with respect to one dimension of said spacing member, wherein the spacing member defines an imaginary arcuate centerline residing between opposing sides of the external concavo-convex contour of said spacing member;

(c) attaching a rigid inflexible member to the spacing member, said rigid inflexible member being straight along a majority length thereof, and using said rigid inflexible member for directing and inserting the spacing member along an arcuate insertion path through the incision such that the imaginary arcuate centerline follows said arcuate insertion path during the insertion.

69. (New) The method of claim 68, wherein part (c) further comprises attaching a rigid inflexible rod member to the spacing member, and using said rigid inflexible rod member for directing and inserting the spacing member along an arcuate insertion path through the incision such that the imaginary arcuate centerline follows said arcuate insertion path during the insertion.